

I claim:

1. A programmable unit, comprising:

at least one program running unit for running a program;

a stopping device connected to said program running unit, said stopping device stopping the running of the program by said program running unit; and

other components connected to said stopping device, said stopping device also causing said other components to be stopped, in addition to stopping said program running unit with which said stopping device is associated.

2. The programmable unit according to claim 1, wherein said other components include at least one further program running unit and said stopping device able to stop said further program running unit which is not associated with said stopping device.

3. The programmable unit according to claim 2, wherein said other components which can be stopped by said stopping device include units which are connected to and cooperate with said program running unit and said further program running unit.

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4. The programmable unit according to claim 3, wherein said units are stopped by said stopping device later in time than said program running unit and said further program running unit.

5. The programmable unit according to claim 4, including at least one bus, and components that can be stopped by said stopping device are at least partially connected to one another through said bus.

6. The programmable unit according to claim 5, including bus interfaces and each of said bus interfaces is connected to one of said program running unit and said further program running unit and to said bus, said program running unit and said further program running unit function as bus masters, said units are stopped only when said bus masters and said bus interfaces have no more data to output and/or are no longer waiting for already requested data or data that is still to be requested.

7. The programmable unit according to claim 5, wherein said bus includes a first bus part, a second bus part and a bus bridge connecting said first bus part to said second bus part, said units are stopped only when said bus bridge has no more data to pass on.

8. The programmable unit according to claim 1, wherein after a stopped state of components of the programmable unit which have been stopped is cancelled, said units recommence operation before said program running unit and said further program running unit recommence operation.

9. The programmable unit according to claim 6, wherein said units function as bus slaves and after a stopped state of components which have been stopped is cancelled, only said bus slaves recommencing operation, and said bus masters recommencing operation only after said bus slaves have recommenced operation.

10. The programmable unit according to claim 1, wherein said stopping device is an on-chip debug support module.